

# PATENT COOPERATION TREATY

TRANSLATION

From the  
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing  
(day/month/year)

Applicant's or agent's file reference

**P00037351-P0**

**FOR FURTHER ACTION**

See paragraph 2 below

International application No.

**PCT/JP2005/000321**

International filing date (day/month/year)

**06.01.2005**

Priority date (day/month/year)

**08.01.2004**

International Patent Classification (IPC) or both national classification and IPC

Applicant

**MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.**

1. This opinion contains indications relating to the following items:

- |                                     |              |  |
|-------------------------------------|--------------|--|
| <input checked="" type="checkbox"/> | Box No. I    | Basis of the opinion   |
| <input type="checkbox"/>            | Box No. II   | Priority   |
| <input type="checkbox"/>            | Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability   |
| <input type="checkbox"/>            | Box No. IV   | Lack of unity of invention   |
| <input checked="" type="checkbox"/> | Box No. V    | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/>            | Box No. VI   | Certain documents cited  |
| <input type="checkbox"/>            | Box No. VII  | Certain defects in the international application   |
| <input type="checkbox"/>            | Box No. VIII | Certain observations on the international application  |

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/JP

Authorized officer

Facsimile No.

Telephone No.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2005/000321

Box No. I

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.  
☐ This opinion has been established on the basis of a translation from the original language into the following language  
\_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material  
☐ a sequence listing  
☐ table(s) related to the sequence listing
  - b. format of material  
☐ in written format  
☐ in computer readable form
  - c. time of filing/furnishing  
☐ contained in the international application as filed.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/JP2005/000321

<b>Box No. V</b>	<b>Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</b>		
<b>1. Statement</b>			
Novelty (N)	Claims	1-19	YES
	Claims		NO
Inventive step (IS)	Claims	6, 7, 14	YES
	Claims	1-5, 8-13, 15-19	NO
Industrial applicability (IA)	Claims	1-19	YES
	Claims		NO
<b>2. Citations and explanations:</b>			
<p>Document 1: JP, 11-159941, A (Sharp Corp.), 15 June, 1999 (15.06.99), page 4, column 6, line 33 to page 5, column 7, line 17; page 6, column 9, lines 13-24; Figs. 1-4 and 9</p> <p>Document 2: Microfilm of the specification and drawings annexed to Japanese Utility Model Application No. 189006/1984 (Laid-open No. 106785/1986), (Sanyo Electric Co., Ltd.), 7 July, 1986 (07.07.86), page 4, line 9 to page 5, line 12; Figs. 2-5</p> <p>Document 3: JP, 10-73362, A (Sharp Corp.), 17 March, 1998 (17.03.98), page 6, column 9, lines 13-46, Figs. 9-11</p> <p>Document 4: JP, 8-189752, A (Matsushita Refrigeration Co.), 23 July, 1996 (23.07.96), page 2, column 1, line 30 to column 2, line 4, Figs. 6 and 7</p> <p>Document 5: JP, 2003-287334, A (Toshiba Corp.), 10 October, 2003 (10.10.03), page 4, column 6, lines 14-38, Fig. 1</p> <p>The subject matter of claim 1 does not appear to involve an inventive step in view of the inventions described in documents 1 and 2 cited in the ISR. A person skilled in the art could have easily made a condensation pipe 12 having a header pipe 11 and a fin 13, described in document 1, in a spiral form as a spine fin tube 13 having a band-like member 17, described in document 2.</p> <p>The subject matter of claim 2 does not appear to involve an inventive step in view of the inventions described in documents 1 and 2. Document 1 describes "a shielding member 25 on the opposite side to the opening part opposite a fan 5".</p> <p>The subject matter of claim 3 does not appear to involve an inventive step in view of the inventions described in documents 1 and 2. A constitution described in document 1 that a shielding member 25 for a condenser 6 is in the proximity of the inner walls is a matter of design variation that a person skilled in the art could have adopted as necessary.</p> <p>The subject matter of claim 4 does not appear to involve an inventive step in view of the inventions described in documents 1 and 2. Document 1 describes the constitution that "outside air flows in between condensation pipes 12 and is delivered through a cooling fan 5".</p> <p>The subject matter of claim 5 does not appear to involve an inventive step in view of the inventions described in documents 1 and 2, and document 3 cited in the ISR. A person skilled in the art could have easily made a condenser 6 described in document 1 wherein air flows out from the</p>			

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2005/000321

Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

inside space of a condenser, as described in document 3.

The subject matter of claim 8 does not appear to involve an inventive step in view of the inventions described in documents 1 and 2. Document 1 describes "a suction port 8 formed in a machine chamber 1 to take in air".

The subject matter of claim 9 does not appear to involve an inventive step in view of the inventions described in documents 1 and 2, and document 4 cited in the ISR. A person skilled in the art could have easily provided the refrigerator in document 1 with a filter 115 in the main body of the refrigerator on the windward side from an opening port 11 of a machine chamber 102 in document 4.

The subject matters of claims 10 and 11 do not appear to involve an inventive step in view of the inventions described in documents 1 and 2. Document 1 describes "a suction port 8 formed on a machine chamber 1 in the lower part of the main body of the refrigerator, on the windward side from a shielding member 25 on the opposite side to an opening opposite a fan 5".

The subject matters of claims 12 and 13 do not appear to involve an inventive step in view of the inventions described in documents 1 and 2. Document 1 describes "a delivery port 10 to deliver air from a machine chamber 1 in the lower part of the main body of the refrigerator".

The subject matters of claims 15-18 do not appear to involve an inventive step in view of the inventions described in documents 1 and 2, and document 5 cited in the ISR. A person skilled in the art could have easily applied "the C-fan control whereby, during the operation of a compressor 20, a C fan 19 is run when the outside temperature is above a predetermined temperature, and is stopped when the outside temperature is below a predetermined temperature", described in document 5, to the control of a cooling fan 5 in document 1.

The subject matter of claim 19 does not appear to involve an inventive step in view of the inventions described in documents 1 and 2. Making a band-like member 17 of a spine fin tube 13 described in document 2 in the form of a thin plate is a matter of design variation that a person skilled in the art could have adopted as required.

The subject matters of claims 6, 7 and 14 are neither described in any of the documents cited in the ISR nor obvious to a person skilled in the art.

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

**TRANSLATION**  
**PCT**

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing  
(day/month/year)

Applicant's or agent's file reference

**P00037351-P0**

**FOR FURTHER ACTION**

See paragraph 2 below

International application No.

**PCT/JP2005/000321**

International filing date (day/month/year)

**06.01.2005**

Priority date (day/month/year)

**08.01.2004**

International Patent Classification (IPC) or both national classification and IPC

Applicant

**MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.**

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/JP

Authorized officer

Facsimile No.

Telephone No.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2005/000321

Box No. I

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐

This opinion has been established on the basis of a translation from the original language into the following language

\_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

☐

a sequence listing

☐

table(s) related to the sequence listing

b. format of material

☐

in written format

☐

in computer readable form

c. time of filing/furnishing

☐

contained in the international application as filed.

☐

filed together with the international application in computer readable form.

☐

furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/JP2005/000321

Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
<b>1. Statement</b>			
Novelty (N)	Claims	1 - 19	YES
	Claims		NO
Inventive step (IS)	Claims	6, 7, 14	YES
	Claims	1-5, 8-13, 15-19	NO
Industrial applicability (IA)	Claims	1-19	YES
	Claims		NO
<b>2. Citations and explanations:</b>			
<p>Document 1: JP, 11-159941, A (Sharp Corp.), 15 June, 1999 (15.06.99), page 4, column 6, line 33 to page 5, column 7, line 17; page 6, column 9, lines 13-24; Figs. 1-4 and 9</p> <p>Document 2: Microfilm of the specification and drawings annexed to Japanese Utility Model Application No. 189006/1984 (Laid-open No. 106785/1986), (Sanyo Electric Co., Ltd.), 7 July, 1986 (07.07.86), page 4, line 9 to page 5, line 12; Figs. 2-5</p> <p>Document 3: JP, 10-73362, A (Sharp Corp.), 17 March, 1998 (17.03.98), page 6, column 9, lines 13-46, Figs. 9-11</p> <p>Document 4: JP, 8-189752, A (Matsushita Refrigeration Co.), 23 July, 1996 (23.07.96), page 2, column 1, line 30 to column 2, line 4, Figs. 6 and 7</p> <p>Document 5: JP, 2003-287334, A (Toshiba Corp.), 10 October, 2003 (10.10.03), page 4, column 6, lines 14-38, Fig. 1</p> <p>The subject matter of claim 1 does not appear to involve an inventive step in view of the inventions described in documents 1 and 2 cited in the ISR. A person skilled in the art could have easily made a condensation pipe 12 having a header pipe 11 and a fin 13, described in document 1, in a spiral form as a spine fin tube 13 having a band-like member 17, described in document 2.</p> <p>The subject matter of claim 2 does not appear to involve an inventive step in view of the inventions described in documents 1 and 2. Document 1 describes "a shielding member 25 on the opposite side to the opening part opposite a fan 5".</p> <p>The subject matter of claim 3 does not appear to involve an inventive step in view of the inventions described in documents 1 and 2. A constitution described in document 1 that a shielding member 25 for a condenser 6 is in the proximity of the inner walls is a matter of design variation that a person skilled in the art could have adopted as necessary.</p> <p>The subject matter of claim 4 does not appear to involve an inventive step in view of the inventions described in documents 1 and 2. Document 1 describes the constitution that "outside air flows in between condensation pipes 12 and is delivered through a cooling fan 5".</p> <p>The subject matter of claim 5 does not appear to involve an inventive step in view of the inventions described in documents 1 and 2, and document 3 cited in the ISR. A person skilled in the art could have easily made a condenser 6 described in document 1 wherein air flows out from the</p>			

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2005/000321

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

inside space of a condenser, as described in document 3.

The subject matter of claim 8 does not appear to involve an inventive step in view of the inventions described in documents 1 and 2. Document 1 describes "a suction port 8 formed in a machine chamber 1 to take in air".

The subject matter of claim 9 does not appear to involve an inventive step in view of the inventions described in documents 1 and 2, and document 4 cited in the ISR. A person skilled in the art could have easily provided the refrigerator in document 1 with a filter 115 in the main body of the refrigerator on the windward side from an opening port 11 of a machine chamber 102 in document 4.

The subject matters of claims 10 and 11 do not appear to involve an inventive step in view of the inventions described in documents 1 and 2. Document 1 describes "a suction port 8 formed on a machine chamber 1 in the lower part of the main body of the refrigerator, on the windward side from a shielding member 25 on the opposite side to an opening opposite a fan 5".

The subject matters of claims 12 and 13 do not appear to involve an inventive step in view of the inventions described in documents 1 and 2. Document 1 describes "a delivery port 10 to deliver air from a machine chamber 1 in the lower part of the main body of the refrigerator".

The subject matters of claims 15-18 do not appear to involve an inventive step in view of the inventions described in documents 1 and 2, and document 5 cited in the ISR. A person skilled in the art could have easily applied "the C-fan control whereby, during the operation of a compressor 20, a C fan 19 is run when the outside temperature is above a predetermined temperature, and is stopped when the outside temperature is below a predetermined temperature", described in document 5, to the control of a cooling fan 5 in document 1.

The subject matter of claim 19 does not appear to involve an inventive step in view of the inventions described in documents 1 and 2. Making a band-like member 17 of a spine fin tube 13 described in document 2 in the form of a thin plate is a matter of design variation that a person skilled in the art could have adopted as required.

The subject matters of claims 6, 7 and 14 are neither described in any of the documents cited in the ISR nor obvious to a person skilled in the art.